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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,911	08/24/2001	James P. Campbell	020472-000410US	3323

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EXAMINER

PATEL, TULSIDAS C

ART UNIT PAPER NUMBER

2839

DATE MAILED: 09/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/938,911

Applicant(s)

CAMPBELL, JAMES P.

Examiner

T. C. Patel

Art Unit

2839

-- Th MAILING DATE of this communication app ars on th cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***General Status***

1. This is a First Action on the Merits. Claims 1-20 are pending in the case.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

Page 11, paragraph 40, line 3, '475' should be changed to -455--; line 4, '450' should be changed to -460--. Also, page 12, paragraph 44, line 7, "color 4" should be changed to - color 33--.

Applicant is required to review the specification and make necessary corrections.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 4, 5, 9 and 10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 4 recites the limitation "the waveguide of third collimator assembly (line 10) and "the waveguide of fourth collimator assembly" in line13. There is insufficient antecedent basis

Art Unit: 2839

for these limitations in the claim. In the same manner, in claim 5, line 3, "the waveguide of second collimator assembly" lacks antecedent basis.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 11-13, 15-17, 19 and 20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Pan et al. (US 5,889,904).

Pan et al. in figure discloses a plurality of couplers 271, 272, 273, 274, 277, 276, wherein coupler 271 (equal to first I/O waveguide 430 of the instant invention and collimator assembly 440) receives  $\lambda_2\lambda_4\lambda_6\lambda_8$  (equal to colors 1-4 of the instant invention), the coupler reflects wavelengths  $\lambda_2\lambda_4$  (equal to first colors 1 and 3 of the instant invention) and allows wavelengths  $\lambda_6\lambda_8$  (equal to colors 2 and 4 of the instant invention) to pass to coupler 273 (equal to collimator assembly 460 of the instant invention), coupler 273 reflects the wavelength  $\lambda_6$  (equal to color 4 and collimator assembly 460 of the instant invention) and allows wavelength  $\lambda_8$  to pass as an I/O waveguide output (equal to first color 2 of the instant invention). Also, the reflected wavelengths  $\lambda_2\lambda_4$  from coupler 271 is passed on to coupler 272 (equal to colors 1 and 3 and collimator assembly 480). The collimator assembly 272 reflects wavelength  $\lambda_2$  (equal to color 3) and allows wavelength  $\lambda_4$  (equal to color 1) to pass. The parts of the couplers are described in figure 11, which has GRIN lenses 74, 75 and filter 44 and one side is an input and

Art Unit: 2839

the other side is an output. Each GRIN lens is associated with two waveguides or channels (only one channel may be used).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8-10, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et al.

As discussed above, Pan et al. satisfies the limitation of claims 1-7, 11-13, 19 and 20. However, the filter is not disclosed as short pass filter or curved filter and also the specific separation between the adjacent filters or specific wavelengths. These would depend on design parameters and are considered as matter of design choice, and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select single pass or curved filters or specific separation distance between the single pass filters and specific wavelengths, in order to obtain desired separation of frequencies or channels.

10. The prior art made of record and not relied upon is considered pertinent to applicant's invention. Scobey (US 5,583,683), Xu (US 6,118,912), Grassis et al. (US 6,167,171), Scobey (US 5,786,915) and Pan et al. (US 5,652,814) all disclose WDM with collimator and filter arrangement.

Art Unit: 2839

Applicant also should consider these references in response to this office action.

Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

*Change of Address*

11. Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. C. Patel whose telephone number is (703) 308-1736. The examiner can normally be reached on 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Application/Control Number: 09/938,911

Page 6

Art Unit: 2839

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1736.



T. C. Patel  
Primary Examiner  
Art Unit 2839

tcp  
August 29, 2003